

DevOps Certification Training

DevOps Essentials

Learning Objectives : In this module, you will learn the reasons for the evolution of DevOps, what is DevOps, the various skills and market trends in DevOps, introduction to the delivery pipeline in devops and the DevOps ecosystem.

Topics : Why DevOps?, What is DevOps?, DevOps Market Trends, DevOps Engineer Skills, DevOps Delivery Pipeline, DevOps Ecosystem, Edureka Use Case.

Practicals to be covered : Sample use-case for using DevOps practice in Edureka.

Build tools - GIT and Jenkins

Learning Objectives : In this module, you can learn about automatic Source Code Management using GIT and Continuous Integration using Jenkins.

Topics-Introduction to VCS and GIT, GIT File workflow, Important GIT Commands, Introduction to Continuous Integration and Jenkins, Plugin Management in Jenkins, Various scenarios of Building Delivery Pipeline.

Practicals to be covered : Show the various GIT commands to push and pull a repository, Understanding of the Jenkins UI

Build and Test Automation

Learning Objectives : In this module, you can learn how to build an appropriate delivery pipeline and perform test automation on it. You can also understand the various security options and notification management in Jenkins.

Topics-Build Setup in Jenkins, Test Automation, Security in Jenkins, Notification System.

Practicals to be covered : Create a build pipeline from compilation to deployment of application.

Containerization using Docker

Learning Objectives : This module will help you identify the difference between containers and VMs. You can learn about virtualization using Docker. You can also deep dive into image and containers concept in Docker.

Topics : What and Why of Containers, Introduction to Docker, Docker Fundamentals, Image Distribution, Docker Containers.

Practicals to be covered : Create First Image: Hello-World, Images Demo bImage Basics and Base Image Maintenance, Containers Demo bManage Container, Create Images From Containers.

Docker Commands and Use-cases

Learning Objectives : This module deals with the various networking concepts in Docker, the best way to use the Docker Volume, and creating a Docker file.

Topics : Docker Networking, Docker Volumes, Docker Files.

Practicals to be covered : Exposing Container Ports to the Host, Adding Content to Containers, Create Docker File.

Puppet-1

Learning Objectives : This module introduces you to an important topic called "Infrastructure -as-Code". You can learn about the master-agent architecture and catalog compilation in Puppet. You will also learn to write a Puppet program using Puppet DSL.

Topics : Puppet Introduction, Puppet Architecture, Basic Puppet Terminologies, Puppet Language Constructs.

Practicals to be covered : Show the folder structure in Puppet master and client, Install Apache Tomcat, Install JDK.

Puppet-2

Learning Objectives : This module is a deep dive into the Puppet module and helps you learn how to install modules from a third-party tool. You can also learn about node classification using hiera and ENC, Puppet environment structure and configuration, various kinds of puppet classes and puppet template.

Topics : Puppet Modules, Node Classification, Puppet Environment, Puppet Classes, Puppet Template.

Practicals to be covered : Write code for DEV to use Java/Tomcat 8 and PROD to use Java/Tomcat 7, Illustrate overriding of a tomcat application, Create a template for tomcat configuration file.

Continuous Monitoring using Nagios

Learning Objectives : This module helps you integrate Jenkins, Docker and Puppet, and create an application using them. You can also learn about system monitoring using Nagios and its components.

Topics : Combining Jenkins, Docker and Puppet, Introduction to Nagios, Nagios Plugins, Nagios Objects, Nagios Commands, Nagios Notification.

Practicals to be covered : Configure Nagios to monitor Web server, Remove Tomcat container, Nagios server config and modify puppet script to automatically add web server to list of servers to be monitored.